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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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DORSEY & WHITNEY LLP INTELLECTUAL PROPERTY DEPARTMENT 250 PARK AVENUE NEW YORK, NY 10177				
EXAMINER				
KISH, JAMES M				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/709,162

Applicant(s)

TEARNEY ET AL.

Examiner

JAMES KISH

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 68-141 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 68-141 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: 10/25/07
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments filed February 6, 2008 have been fully considered but they are not persuasive.

At the bottom of page 23 and into the top of page 24, the Applicant argues that the prism of Wurster is a non-dispersive prism. The Examiner cannot find where the Applicant draws this conclusion from. The Cambridge Dictionaries Online defines a prism as "a transparent object, often glass, that separates white light into different colors." Secondly, the Applicant states that the light used is monochromatic. To the best of the Examiner's knowledge, there is nothing in the disclosure that states this. At column 2, lines 11-29 of Wurster it discusses how infrared light is deflected while visible light is allowed to pass. Therefore, it seems apparent that a light having multiple wavelengths is being used. The Applicant claims that the prism should be a non-dispersive prism. For at least the reasons above, the Examiner respectfully disagrees and does not believe there is enough evidence to confirm this assumption. Therefore, based on the broadest reasonable interpretation of the reference, the Examiner holds that the prism, in conjunction with the tube **19** and the mirror **1** provide a dispersive arrangement.

Regarding the Applicant's argument at the bottom of page 24 with respect to claims 76-78 and 96-98 -- these claims (as well as claims 75 and 95) do not provide further structural limitation to the apparatus. The subject matter of these claims is the image and the information that creates the image. The image is not itself a structural

aspect of an apparatus. Section 2114 of the MPEP states, "Apparatus claims cover what a device *is*, not what a device *does* (emphasis in original)." *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). Therefore, these claims do not provide further structural limitations and are not given patentable weight within the scope of an apparatus claim.

The Applicant argues on the top of page 25 that the references of record do not teach or suggest a fluid displacement arrangement cooperative with the dispersive arrangement. The Examiner respectfully disagrees. The terminology "cooperative with" is very broad language. It can be interpreted to mean that the first arrangement actually performs a function that the second arrangement may benefit from. For example, the first arrangement may displace a fluid onto the lens of the second arrangement to clear the lens of debris. However, it may also imply that the two arrangements may operate at the same instance while not having any direct interaction at all. Based on this, the needle endoscope of Olinger is capable of imaging while simultaneously injecting a fluid. Therefore, the two arrangements may operate cooperatively.

At the bottom of page 25, the Applicant argues that none of the references teach or suggest any polishing of fibers, much less where the fibers (it is assumed this means the end of the fibers) are at angles different from one another. This claim represents a product-by-process claim. Section 2113 of the MPEP states, "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production." Therefore, the claim limitation stating that the angles are

created by polishing is not granted patentable weight. With regard to the angles, the top of page 20 of the specification provides one purpose for the angles. This purpose is, "such that an energy source transmitted through each fiber is focused onto a distinct target site." Page 24, lines 9-11 provide another purpose, which is "so that they [i.e., the fibers] both aim at the same target site..." Therefore, the purpose of the polished angles is for aiming the energy. Wurster, at least, provides for aiming and guiding the energy at the end of the optical pathway. This is explained at column 1, line 57 through column 2, line 10. Absent any criticality or unexpected result for the different angles of the fibers, Wurster, at least, provides the same capability.

Claim Objections

Claims 75-78, 83, 95-98 and 103 are objected to because of the following informalities:

Regarding the amendment to claims 83 and 103, the amendment creates confusion as to what is cooperative. It is unclear if the fluid displacement arrangement or the structure is cooperative with the dispersive arrangement.

Regarding claims 75-78 and 95-98 -- these claims do not provide further structural limitation to the apparatus. The subject matter of these claims is the image and the information that creates the image. The image is not itself a structural aspect of an apparatus.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 68-73, 75, 79-82 and 86-87 are rejected under 35 U.S.C. 102(b) as being anticipated by Wurster (US Patent No. 4,141,362). Wurster discloses a laser endoscope equipped both with an observation optic and a laser beam. A deflection mirror is connected to a beam path of the observation optic on the proximal side for a laser beam in order to allow the operator to direct the laser beam into the area of observation in order to treat the area (column 1, line 57 through column 2, line 4). A prism is also used within the endoscopic assembly (column 3, lines 11-12). It is possible to reduce the diameter of the endoscope to a minimum thereby opening up the areas of applications in very small body hollows and/or cavities (column 1, lines 39-42 and column 3, lines 1-7).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 74, 76-78, 84-85, 89-102, 104-107, 109-116, 118-128 and 130 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wurster in view of Fritch et al. (US Patent No. 4,607,622). Wurster discloses a laser endoscope equipped both with an observation optic and a laser beam, as described in the rejection of claims 68-73, 75, 79-82 and 86-87. However, Wurster fails to provide optical fibers. Fritch teaches a fiber optic ocular endoscope attached to a TV monitor to provide the operator with a display of the interior of the eye. At least two fiber bundles are used for illumination purposes and a third lumen is used for providing optical therapy (column 2, line 63 through column 3, line 19 and column 5, lines 1-13). The size to permit entry into the eye through an incision varies in size from 250 microns to approximately 3 millimeters (column 5, lines 30-36). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide optic fibers for illumination channels as taught by Fritch in order to bending of the endoscope to provide viewing of areas

beneath the iris and on the side of the iris that were otherwise impossible to view or reach before (column 2, lines 29-40).

Claims 83, 88, 103, 108, 117, 129 and 131-136 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wurster in view of Fritch et al. and further in view of Olinger et al. (US Patent No. 3,941,121). Wurster combined with Fritch is discussed above in the rejection of claims 74, 76-78, 84-85, 89-102, 104-107, 109-116, 118-128 and 130. However, these references fail to provide a fluid displacement arrangement. Olinger teaches a needle endoscope including a hollow needle of about 18-gauge (*see* Abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Wurster and Fritch into the tip of a needle, as taught by Olinger, because as described by the references the dimensions allow for such placement without modification. Furthermore, it would have been obvious to combine in order to provide operative visual supervision of a treatment procedure performed through an operative channel of the needle and which is small enough to be universally acceptable for introduction into previously inviolate tissue area without resorting to open surgery techniques (column 2, lines 56-62).

Claim 137 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wurster in view of Kittrell et al. (US Patent No. 5,318,024). Wurster discloses a laser endoscope equipped both with an observation optic and a laser beam. A deflection mirror is connected to a beam path of the observation optic on the proximal side for a

laser beam in order to allow the operator to direct the laser beam into the area of observation in order to treat the area (column 1, line 57 through column 2, line 4). A prism is also used within the endoscopic assembly (column 3, lines 11-12). It is possible to reduce the diameter of the endoscope to a minimum thereby opening up the areas of applications in very small body hollows and/or cavities (column 1, lines 39-42 and column 3, lines 1-7). However, Wurster does not specifically define the dispersive arrangement as including a grating. Kittrell teaches a laser endoscope for spectroscopic imaging and provides multiple embodiments in which the distal end of the laser catheter uses any number of devices, or arrangements, to control the location and divergence of the laser light and return of fluorescence of scattered light. These arrangements include gratings and prism (column 13, lines 64-67). See Figures 13A-E. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a grating or a prism, as taught by Kittrell, because they are both well-known capabilities of such devices and would be an obvious design choice to one of skill in the art in order to control the location and divergence of laser light.

Claims 138-140 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wurster in view of Fritch as applied to claims 89, 113 and 125 above, and further in view of Kittrell et al. (US Patent No. 5,318,024). Wurster in combination with Fritch does not specifically define the dispersive arrangement as including a grating. Kittrell teaches a laser endoscope for spectroscopic imaging and provides multiple embodiments in which the distal end of the laser catheter uses any number of devices,

or arrangements, to control the location and divergence of the laser light and return of fluorescence of scattered light. These arrangements include gratings and prism (column 13, lines 64-67). See Figures 13A-E. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a grating or a prism, as taught by Kittrell, because they are both well-known capabilities of such devices and would be an obvious design choice to one of skill in the art in order to control the location and divergence of laser light.

Claim 141 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wurster in view of Fritch and Olinger as applied to claim 131 above, and further in view of Kittrell et al. (US Patent No. 5,318,024). Wurster in combination with Fritch does not specifically define the dispersive arrangement as including a grating. Kittrell teaches a laser endoscope for spectroscopic imaging and provides multiple embodiments in which the distal end of the laser catheter uses any number of devices, or arrangements, to control the location and divergence of the laser light and return of fluorescence of scattered light. These arrangements include gratings and prism (column 13, lines 64-67). See Figures 13A-E. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a grating or a prism, as taught by Kittrell, because they are both well-known capabilities of such devices and would be an obvious design choice to one of skill in the art in order to control the location and divergence of laser light.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES KISH whose telephone number is (571)272-5554. The examiner can normally be reached on 8:30 - 5:00 ~ Mon. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ruth S. Smith/
Primary Examiner, Art Unit 3737

JMK